

IN THE CLAIMS

Claim 1 (currently amended): An electromagnetic shock absorber comprising:

a shock absorber body which makes telescopic motion in response to an input from outside;

a ball screw mechanism which is arranged at the shock absorber body, converts the telescopic motion into rotary motion, and is composed of a ball nut and a screw shaft;

a motor which is provided coaxially with the shock absorber body and generates electromagnetic resistance to oppose against the rotary motion to be input into a rotary shaft of the motor; and

a cylindrical member which covers the shock absorber body and the motor from outside and whose part to cover the motor also serves as a motor frame;

wherein:

the shock absorber body has an external cylinder and an internal cylinder to be slidably inserted into the external cylinder;

an upper part of the external cylinder extends so as to cover the motor, and the frame of the motor is formed at an extended part of the external cylinder;

the cylindrical member is constituted by the external cylinder;

the ball nut of the ball screw mechanism is fixed to an upper part of the internal cylinder and a screw shaft to be spirally engaged with the ball nut is connected with the rotary shaft of the motor;

an outer circumference of the internal cylinder is slidably supported by a bush installed at an inner circumference of a lower end of the external cylinder;

a halfway point of the screw shaft is rotatably supported through bearings installed inside the external cylinder;

a first cushion member is installed at a lower end of the screw shaft which comes into contact with the ball nut from the under surface when the internal cylinder makes a stroke up to the maximum descent position; and

a second cushion member is installed at a lower end of the bearing which comes into contact with the ball nut from the top surface when the internal cylinder makes a stroke up to the maximum ascent position.

Claims 2 and 3 (canceled)

Claim 4 (currently amended): The electromagnetic shock absorber according to claim [[2]] 1, wherein the rotary shaft of the motor is rotatably supported at its both ends by a pair of bearings installed at the external cylinder.

Claim 5 (canceled)

Claim 6 (currently amended): The electromagnetic shock absorber according to claim [[5]] 1, wherein the screw shaft and the rotary shaft are connected through a planetary gear mechanism which decelerates and transmits a rotation of the screw shaft to the rotary shaft.

Claim 7 (canceled)

Claim 8 (new): The electromagnetic shock absorber according to claim 1, wherein the cylindrical member and the external cylinder are of a same diameter.